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ENGINEERING AND COMPLIANCE DIVISION	APP. NUMBER	564923-27
<i>Large Coating, Printing and Chemical Operations Team</i>	PROCESSED BY	SMP
APPLICATION PROCESSING AND CALCULATIONS	REVIEWED BY	
	DATE	07/23/14

**PERMIT TO CONSTRUCT EVALUATION
SPRAY BOOTHS, ABRASIVE BLASTER & DUST COLLECTOR**

Applicant's Name	AMERICAN SECURITY PRODUCTS, INC.
Company I.D.	059237
Mailing Address	11925 PACIFIC AVE., FONTANA, CA 92337
Equipment Address	11925 PACIFIC AVE., FONTANA, CA 92337

EQUIPMENT DESCRIPTION

Application No. 564923 (Modification Previous A/N 555289, P/N G26628)

MODIFICATION OF SPRAY BOOTH UNDER P/O G26628 (A/N 555289) CONSISTING OF:

SPRAY BOOTH NO. 1, SPRAY KING, AUTOMOTIVE TYPE, MODEL 200-FAF, 14'-0" W. X 9'-6" H. X 50'-0" D., WITH EIGHTEEN 20" X 20" EXHAUST FILTERS AND A 5 HP (12,000 CFM) EXHAUST FAN.

BY THE ADDITION OF:

SPRAY-TECH MAKE-UP AIR UNIT, M1LN SERIES, WITH A 1,000,000 BTU/HR, MIDCO, MODEL NO. LNB 1000, LOW NO_x, NATURAL GAS-FIRED BURNER.

Application No. 564924 (Modification, Previous A/N 555288, P/N G26627)

MODIFICATION OF SPRAY BOOTH UNDER P/O G26627 (A/N 555288) CONSISTING OF:

SPRAY BOOTH NO. 2, SPRAY KING, AUTOMOTIVE TYPE, MODEL 200-FAF, 14'-0" W. X 9'-6" H. X 45'-0" D., WITH EIGHTEEN 20" X 20" EXHAUST FILTERS AND A 5 HP (12,000 CFM) EXHAUST FAN.

BY THE ADDITION OF:

SPRAY-TECH MAKE-UP AIR UNIT, M1LN SERIES, WITH A 1,000,000 BTU/HR, MIDCO, MODEL NO. LNB 1000, LOW NO_x, NATURAL GAS-FIRED BURNER.

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Application No. 564925 (Modification, Previous A/N 430081, P/N F69888)

MODIFICATION OF SPRAY BOOTH UNDER P/O G26627 (A/N 555288) CONSISTING OF:

SPRAY BOOTH NO. 3, SPRAY SYSTEMS, AUTOMOTIVE TYPE, 18'-0" W. X 41'-0" L. X 10'-0" H., WITH TWENTY-FOUR 20" X 25" EXHAUST FILTERS AND ONE 7 ½ HP (12,000 CFM) EXHAUST FAN.

BY THE ADDITION OF:

SPRAY-TECH MAKE-UP AIR UNIT, M1LN SERIES, WITH A 1,000,000 BTU/HR, MIDCO, MODEL NO. LNB 1000, LOW NO_x, NATURAL GAS-FIRED BURNER.

Application No. 564926 (Administrative Change, Previous A/N 430080, P/N F69887)

MODIFICATION OF SPRAY BOOTH UNDER P/O F69887 (A/N 430080) CONSISTING OF:

SPRAY BOOTH NO. 4, SPRAY SYSTEMS, AUTOMOTIVE TYPE, 14'-0" W. X 42'-0" L. X 9'-0" H., WITH TWENTY-TWO 20" X 25" EXHAUST FILTERS, ONE 3 HP EXHAUST FAN (12,000 CFM), ONE 10 HP MAKE UP AIR FAN, AND A 1,000,000 BTU PER HOUR NATURAL GAS BURNER.

BY THE REPLACEMENT OF:

ONE 10 HP MAKE UP AIR FAN, AND A 1,000,000 BTU PER HOUR NATURAL GAS BURNER.

AND BY THE ADDITION OF:

SPRAY-TECH MAKE-UP AIR UNIT, M1LN SERIES, WITH A 1,000,000 BTU/HR, MIDCO, MODEL NO. LNB 1000, LOW NO_x, NATURAL GAS-FIRED BURNER.

Application No. 564927 (New Construction)

ABRASIVE BLASTING SYSTEM CONSISTING OF:

1. ABRASIVE BLASTING ROOM, SURFACE PREPARATION SOLUTIONS, MODEL NO. SPNW 151010, 15' – 0" W. X 10' – 0" L. X 10' – 0" H.
2. ABRASIVE BLASTING POT, 1980 POUND CAPACITY.
3. ONE ABRASIVE BLASTING NOZZLE WITH A MAXIMUM INTERNAL DIAMETER OF ¼".
4. PLANT AIR (90 CFM) WITH A MAXIMUM PRESSURE OF 100 PSIG.

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Application No. 564928 (New Construction)

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. DUST COLLECTOR, SURFACE PREPARATION SOLUTIONS, CARTRIDGE TYPE, MODEL NO. MCB 6-01-S, WITH 8 CARTRIDGES, 2720 SQ. FEET OF TOTAL FILTER AREA, AND REVERSE PULSE JET CARTRIDGE CLEANING.
2. EXHAUST SYSTEM WITH A 5 HP BLOWER (6,750 SCFM) VENTING ONE ABRASIVE BLASTING ROOM.

Application No. 564929

TITLE V REVISION

HISTORY

American Security Products submitted above permit applications to install a new abrasive blasting room and a dust collector at their Fontana location. They also submitted four applications to install air make-up units on the existing four spray booths. In one of the spray booths, the existing air make-up unit is being replaced. The other three spray booths will get new air make-up units.

The facility has a number of active permits from the District for spray booths, abrasive blasting unit, laser cutters and a cement mixing equipment. This company manufactures security safes for residential and business uses. It involves metal fabrication, assembly, coating application, and cement mixing. The above equipment is used to apply coatings for external aesthetics. There will not be any changes in the coatings and the solvents used in the spray booths. The coatings and solvents used in this equipment comply with Rule 1107 and 1171 VOC requirements.

The facility was recently inspected by the District inspector. When the issue of the Rule 1147 was raised by the inspector, the company decided to remove the air heaters located on the roof near the booths. Now the applicant has decided to install new District approved air make-up units on all the booths to achieve compliance with District Rule 1147 requirements.

As described above, one application was submitted for a permit to modify a heated booth. The booth is equipped with a 1,000,000 BTU/HR burner, with 100 PPMV NO_x at 3% O₂. The applicant is proposing to modify this booth by replacing the burner with a 1,000,000 BTU/HR low NO_x burner, with 30 PPMV NO_x at 3% O₂. This will reduce NO_x emissions.

The facility is currently operating under a facility-wide VOC emission cap of 4080 lbs/month (136 lbs/day). In addition to the NSR cap, this facility has opted to take a 20 ton/year VOC cap to qualify for exemption from Rule 1132 requirements and 10 tons of a single HAP (25 tons of combination of HAPs) for NESHAP exemption.

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The District database shows one notice to comply was issued to this company to provide records on the heaters in the last two years. One notice of violation was issued in last two years which was voided subsequently. The facility now operates “in compliance” upon follow-up inspection. Also, the database shows no complaint against this facility for nuisance odors or visible emissions in the last two years.

The facility is located within an industrial area. It is not located within 1000 feet from any school and there will not be any emission increases exceeding the threshold levels under this project. Hence, these applications will not require a public notification per Rule 212.

A Title V renewal permit was issued to this facility in July 2011. This is the second revision to the renewed Title V permit. The proposed project is considered as a "de minimis significant permit revision" to the renewed Title V permit, as described in the Regulation XXX evaluation.

PROCESS DESCRIPTION

The company is in the security safe manufacturing business. The parts are manufactured from mild steel and assembled on site. The safes are spray coated using liquid coatings in the spray booths. The spray booths have regular 2” thick particulate arrestor filters. The filter system is 90.00% efficient in controlling PM/PM10 emissions. Coatings are applied using HVLP spray equipment.

This abrasive blasting unit will be used to clean steel surfaces during the manufacturing operation. Mild steel is used for the safe manufacturing. The impacting abrasive particles are also made of mild steel. This steel may contain small quantities of toxic compounds such as chromium, nickel, copper and manganese. The abrasive media from the blaster will be vented to a cartridge filter unit to control the particulate emissions.

The abrasive blasting room is equipped with one nozzle of 1/4 inch diameter and powered by 100 psi plant air. The compressed air pressure system uses a pressure pot in which the abrasive is contained. The pressure forces the abrasive through the blast hose. The nozzle propels mild steel blasting media at the substrate to be cleaned. The operator can start or stop the operation through a control valve. The lighter entrained particulate matter is directed to cartridge dust collector filter device. The air withdrawn from the room is replaced through a baffled air intake at the top. The cartridge filter has 99.00% overall control efficiency for PM10 emissions.

OPERATING HOURS

Average : 16 hour/day, 5 day/week, 52 weeks/year
Maximum: 24 hour/day, 7 days/week, 52 weeks/year

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EMISSION CALCULATIONS

Application No. 564926 (Spray Booth)

This booth is equipped with a 1,000,000 BTU/HR burners. The modified booth will have a low NOx burner with same 1,000,000 BTU/HR heat input. This will reduce the NOx emissions under this project, however there will be a increase in the CO emissions. The modified booth will comply with the current BACT for NOx and the Rule 1147 requirements. There will not be any changes in the VOC emissions under this project. Previous application NSR data will be re-entered.

<u>564926</u>		Spray Booth (Proposed)						@
	maximum	normal						
hr/dy	24	16		max heat input	1.00E+06 (BTU/hr)			
<u>dy/wk</u>	7	5		<u>gross heating value</u>	1050 (BTU/scf)			
<u>wk/yr</u>	52	52						
load	100%	100%						
	Emission	MAX	AVE	MAX	30-DAY	MAX	MAX	
	Factors	(lb/hr)	(lb/hr)	(lb/dy)	(lb/dy)	(lb/yr)	(ton/yr)	
SO ₂ (R1)	0.83	0.001	0.001	0.019	NA	7	0.003	
SO ₂ (R2)	0.83	0.001	0.001	0.019	0.019	7	0.003	
NO ₂ (R1)	38.94	0.037	0.037	0.890	NA	324	0.162	
NO ₂ (R2)	38.94	0.037	0.037	0.890	0.890	324	0.162	
CO (R1)	316	0.301	0.301	7.223	NA	2,629	1.315	
CO (R2)	316	0.301	0.301	7.223	7.223	2,629	1.315	
TOC (R1=R2)	7	0.007	0.007	0.160	NA	58	0.029	
N ₂ O (R1=R2)	2.2	0.002	0.002	0.050	0.050	18	0.009	
PM, PM ₁₀ (R1=R2)	7.5	0.007	0.007	0.171	0.171	62	0.031	
Hexane	0.0063	6.0E-06	6.0E-06	1.4E-04	NA	5.24E-2	2.62E-5	
Ammonia	3.2	3.0E-03	3.0E-03	7.3E-02	NA	2.66E+1	1.33E-2	
ethyl benzene	0.0095	9.0E-06	9.0E-06	2.2E-04	NA	7.90E-2	3.95E-5	
acetaldehyde	0.0043	4.1E-06	4.1E-06	9.8E-05	NA	3.58E-2	1.79E-5	
acrolein	0.0027	2.6E-06	2.6E-06	6.2E-05	NA	2.25E-2	1.12E-5	
benzene	0.008	7.6E-06	7.6E-06	1.8E-04	NA	6.66E-2	3.33E-5	
formaldehyde	0.017	1.6E-05	1.6E-05	3.9E-04	NA	1.41E-1	7.07E-5	
napthalene	0.0003	2.9E-07	2.9E-07	6.9E-06	NA	2.50E-3	1.25E-6	
PAH's	0.0001	9.5E-08	9.5E-08	2.3E-06	NA	8.32E-4	4.16E-7	
toluene	0.0366	3.5E-05	3.5E-05	8.4E-04	NA	3.05E-1	1.52E-4	
xylenes	0.0272	2.6E-05	2.6E-05	6.2E-04	NA	2.26E-1	1.13E-4	
NO ₂ @ 3% excess O ₂ ----->>>	30.00	(ppmv)		SO ₂ @ 3% excess O ₂ ----->>>	0.46	(ppmv)		
CO @ 3% excess O ₂ ----->>>	399.87	(ppmv)		PM @ 12% CO ₂ ----->>>	5.5E-09	(grain/ft ³)		

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564923 Spray Booth (Pre-Modification) @

	maximum	normal		
hr/dy	24	16	max heat input	1.00E+06 (BTU/hr)
<u>dy/wk</u>	7	5	<u>gross heating value</u>	1050 (BTU/scf)
<u>wk/yr</u>	52	52		
load	100%	100%		

	Emission Factors	MAX (lb/hr)	AVE (lb/hr)	MAX (lb/dy)	30-DAY (lb/dy)	MAX (lb/yr)	MAX (ton/yr)
SO ₂ (R1)	0.83	0.001	0.001	0.019	NA	7	0.003
SO ₂ (R2)	0.83	0.001	0.001	0.019	0.019	7	0.003
NO ₂ (R1)	130	0.124	0.124	2.971	NA	1,082	0.541
NO ₂ (R2)	130	0.124	0.124	2.971	2.971	1,082	0.541
CO (R1)	79	0.075	0.075	1.806	NA	657	0.329
CO (R2)	79	0.075	0.075	1.806	1.806	657	0.329
TOC (R1=R2)	7	0.007	0.007	0.160	NA	58	0.029
N ₂ O (R1=R2)	2.2	0.002	0.002	0.050	0.050	18	0.009
PM, PM ₁₀ (R1=R2)	7.5	0.007	0.007	0.171	0.171	62	0.031
Hexane	0.0063	6.0E-06	6.0E-06	1.4E-04	NA	5.24E-2	2.62E-5
Ammonia	3.2	3.0E-03	3.0E-03	7.3E-02	NA	2.66E+1	1.33E-2
ethyl benzene	0.0095	9.0E-06	9.0E-06	2.2E-04	NA	7.90E-2	3.95E-5
acetaldehyde	0.0043	4.1E-06	4.1E-06	9.8E-05	NA	3.58E-2	1.79E-5
acrolein	0.0027	2.6E-06	2.6E-06	6.2E-05	NA	2.25E-2	1.12E-5
benzene	0.008	7.6E-06	7.6E-06	1.8E-04	NA	6.66E-2	3.33E-5
formaldehyde	0.017	1.6E-05	1.6E-05	3.9E-04	NA	1.41E-1	7.07E-5
naphthalene	0.0003	2.9E-07	2.9E-07	6.9E-06	NA	2.50E-3	1.25E-6
PAH's	0.0001	9.5E-08	9.5E-08	2.3E-06	NA	8.32E-4	4.16E-7
toluene	0.0366	3.5E-05	3.5E-05	8.4E-04	NA	3.05E-1	1.52E-4
xylene	0.0272	2.6E-05	2.6E-05	6.2E-04	NA	2.26E-1	1.13E-4

NO₂ @ 3% excess O₂----->> 100.16 (ppmv) SO₂ @ 3% excess O₂----->> 0.46 (ppmv)
CO @ 3% excess O₂----->> 99.97 (ppmv) PM @ 12% CO₂----->> 5.5E-09 (grain/ft³)

Ver. 1.3

The following table shows emission changes due to the modification of the heating unit. Also, there will be no toxic emission increases under this project. Thus, it will be exempt from the Rule 1401 requirements.

	NO _x		CO	
	Lb/hr	Lb/day	Lb/hr	Lb/day
Pre-Modification	0.124	2.971	0.301	7.223
Post-Modification	0.037	0.890	0.075	1.806
Change		-2.081		+5.417

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Application Nos. 564923/4/5 (Spray Booths)

Under this modification project these spray booths will be equipped with a 1,000,000 BTU/HR low NOx burners. The modified booths will comply with the current BACT for NOx and the Rule 1147 requirements. There will not be any changes in the VOC emissions under this project. Previous application NSR data will be re-entered.

564923/4/5

Spray Booths

@

	maximum	normal		
hr/dy	24	8	max heat input	1.00E+06 (BTU/hr)
<u>dy/wk</u>	7	5	<u>gross heating value</u>	1050 (BTU/scf)
<u>wk/yr</u>	52	52		
load	100%	100%		

	Emission	MAX	AVE	MAX	30-DAY	MAX	MAX
	Factors	(lb/hr)	(lb/hr)	(lb/dy)	(lb/dy)	(lb/yr)	(ton/yr)
SO ₂ (R1)	0.83	0.001	0.001	0.019	NA	7	0.003
SO ₂ (R2)	0.83	0.001	0.001	0.019	0.019	7	0.003
NO ₂ (R1)	38.94	0.037	0.037	0.890	NA	324	0.162
NO ₂ (R2)	38.94	0.037	0.037	0.890	0.890	324	0.162
CO (R1)	316	0.301	0.301	7.223	NA	2,629	1.315
CO (R2)	316	0.301	0.301	7.223	7.223	2,629	1.315
TOC (R1=R2)	7	0.007	0.007	0.160	NA	58	0.029
N ₂ O (R1=R2)	2.2	0.002	0.002	0.050	0.050	18	0.009
PM, PM ₁₀ (R1=R2)	7.5	0.007	0.007	0.171	0.171	62	0.031
Hexane	0.0063	6.0E-06	6.0E-06	1.4E-04	NA	5.24E-2	2.62E-5
Ammonia	3.2	3.0E-03	3.0E-03	7.3E-02	NA	2.66E+1	1.33E-2
ethyl benzene	0.0095	9.0E-06	9.0E-06	2.2E-04	NA	7.90E-2	3.95E-5
acetaldehyde	0.0043	4.1E-06	4.1E-06	9.8E-05	NA	3.58E-2	1.79E-5
acrolein	0.0027	2.6E-06	2.6E-06	6.2E-05	NA	2.25E-2	1.12E-5
benzene	0.008	7.6E-06	7.6E-06	1.8E-04	NA	6.66E-2	3.33E-5
formaldehyde	0.017	1.6E-05	1.6E-05	3.9E-04	NA	1.41E-1	7.07E-5
naphthalene	0.0003	2.9E-07	2.9E-07	6.9E-06	NA	2.50E-3	1.25E-6
PAH's	0.0001	9.5E-08	9.5E-08	2.3E-06	NA	8.32E-4	4.16E-7
toluene	0.0366	3.5E-05	3.5E-05	8.4E-04	NA	3.05E-1	1.52E-4
xylene	0.0272	2.6E-05	2.6E-05	6.2E-04	NA	2.26E-1	1.13E-4

NO ₂ @ 3% excess O ₂ ----->>>	30.00	(ppmv)	SO ₂ @ 3% excess O ₂ ----->>>	0.46	(ppmv)
CO @ 3% excess O ₂ ----->>>	399.87	(ppmv)	PM @ 12% CO ₂ ----->>>	5.5E-09	(grain/ft ³)

Ver. 1.3

It is concluded from past toxic evaluations that these spray booths with a 1,000,000 BTU/HR burner are expected to comply with the Rule 1401 requirements.

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EQUIPMENT SPECIFICATION

Abrasive (steel) Density, lbs/cu. ft.	: 99 lbs/ft ³
Abrasive Emission Factor	: 0.004 lb/lb
No. of cartridges	: 8 cartridgeges
Filter Area Ft ²	: 6750 Ft ²
Filter Cleaning method	: Reverse Pulse Jet
Dust Collector Efficiency	: 99.0%
Use Factor	: Dry 100% (i.e. 1)
Given	: PM10 = 50% of PM (Assumed)
Weight of media shot per hour	: 354 lbs.
Number and diameter of nozzle	: 1, 1/4"
Air Pressure Maximum	: 100 psig
Man-Door	: One at the side wall

EMISSION CALCULATIONS

1. Max./Avg. Uncontrolled PM emissions (R1) (MHU)

$$\begin{aligned} \text{PM Emission factor (EF)} &= 0.004 \\ &= \text{FR} \times \text{EF} \times \text{Use Factor} = 354 \text{ lbs/hr} \times 0.004 \text{ lb/lb} \times 1 (100\%) = 2.0 \text{ lbs/hr} \end{aligned}$$

2. Max./Avg. Uncontrolled PM10 emissions (R1) (AHU)

$$0.5 \times \text{PM} = 0.5 \times 2.0 = 1.0 \text{ lbs/hr.}$$

3. Controlled PM emissions (R2)

$$2.0 \times (1-0.99) = 0.02 \text{ lbs/hr.}$$

4. Controlled PM10 emissions (R2)

$$1.0 \times (1-0.99) = 0.01 \text{ lbs/hr.}$$

	PM	PM10
AHU/MHU (R1) lbs/hr	2.0	1.0
AHC/MHC (R2) lbs/hr	0.02	0.01
MDU (R1) (R1) lbs/day	48.0	24.0
MDC (R2) lbs/day	0.48	0.24

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5. Exhaust Air Particulate Emission Concentration (PC)

$$= R2 / \text{Blower CFM} \times 7,000 \text{ grain/lb} / 60 \text{ min/hr}$$

$$= 0.02 / 6750 \text{ CFM} \times 7000 / 60 = 0.00034 \text{ grain/cfm}$$

6. Air-to-cloth ratio (A/C)

$$A/C = \text{Blower CFM} / \text{Filter Area} = 6750/2720 = 2.48 : 1$$

7. Room Air Changes Per Minute (CAC)

$$= \text{Blower CFM} / \text{room volume}$$

$$= 6750/(15 \times 10 \times 10) = 4.5 \text{ air changes/minute.}$$

8. Room Crossdraft Velocity (Vc)

$$= \text{Blower CFM} / \text{cross section of front wall}$$

$$= 6750/(10 \times 10) = 67.5 \text{ ft/min}$$

9. Air Inlet Port Velocity (Vi)

$$= \text{Blower CFM} / \text{area of port}$$

$$= 6750/(3.14 \times 2.8 \times 2.8) = 274 \text{ ft/min}$$

ABRASIVE BLASTING ROOM AND BAGHOUSE GUIDELINES REVIEW
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ITEM	RECOMMENDED	ACTUAL	COMPLIANCE
Crossdraft Velocity (FPM)	50	67.5	Yes
Downdraft Velocity (FPM)	50	45	No (OK)
Air Port opposite Exhaust Duct	Yes	Yes	Yes
In draft Velocity (FPM)	500	274	No (OK)*
Man-Door Installation	Yes	Yes	Yes
Closed container	Yes	Yes	Yes

- * The in-draft velocity is considered sufficient as the system has pulse-jet cleaning system and 6750 CFM airflow with 4.5 air changes per minute for this size of confined blast room.

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The substrate to be blasted as well as the abrasive media contains chromium, nickel, copper and manganese. Chromium in alloy form is always non-hazardous trivalent kind. However, the pressure and heat of the abrasive blasting operation converts some of the trivalent chromium into hazardous hexavalent form. A source test was performed at American Security Products Inc. and the results indicated 0.252% of hexavalent chromium in total chromium content removed. This factor will be used to calculate emissions of hexavalent chromium.

The material technical data sheets for the blasting media and the substrate metal indicated that maximum weight percent of the toxic metals are as follows:

Toxic Metals	Maximum Weight Percent
Chromium and chromium compounds (Cr)	0.25
Nickel and nickel compounds (Ni)	0.25
Copper and copper compounds (Cu)	0.30
Manganese and manganese compounds (Mn)	1.50

Chromium and chromium compound Emissions:

Controlled particulate emissions = 0.01 lb/hr.

Controlled total Cr emissions = 0.01×0.0025 (0.25% in the metal) = 0.000025 lb/hr.

Controlled hexavalent Cr emissions = 0.000025×0.00252 = 0.000000063 lb/hr.

Nickel and Nickel compound Emissions:

Controlled particulate emissions = 0.01 lb/hr.

Controlled total Ni emissions = 0.01×0.3 (0.25% in the metal) = 0.000025 lb/hr.

Copper and Copper compound Emissions:

Controlled particulate emissions = 0.01 lb/hr.

Controlled total Cu emissions = 0.01×0.3 (0.30% in the metal) = 0.00003 lb/hr.

Manganese and Manganese compound Emissions:

Controlled particulate emissions = 0.01 lb/hr.

Controlled total Mn emissions = 0.01×0.015 (1.50% in the metal) = 0.00015 lb/hr.

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A Tier 2 Risk Assessment was performed to determine the health risk from the toxic air contaminants emitted from the abrasive blasting process. The assessment calculated a cancer risk of 0.0102 in a million (1.02E-08) for the residential receptor and 0.0631 in a million (6.31E-08) for a commercial receptor. HIA and HIC were also <1. Thus, the Tier 2 risk assessment demonstrated compliance with the Rule 1401 (BACT) requirements.

RULES/REGULATION EVALUATIONS

□ **RULE 212, PUBLIC NOTIFICATION**

√ **SECTION 212(c)(1):**

This section requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. This source is not located within 1,000 feet from the outer boundary of a school. Therefore, public notice will not be required by this section.

√ **SECTION 212(c)(2):**

This section requires a public notice for all new or modified facilities which have on-site emission increases exceeding any of the daily maximums as specified in subdivision (g). As shown in the following table, the emission increases are below the daily maximum limits specified by Rule 212(g). Therefore, these applications will not be subject to this section.

LB/DAY	CO	NOX	PM₁₀	ROG	SOX	LEAD
MAX. LIMIT	220	40	30	30	60	3
INCREASES	27.07	0.59	0.75	0.48	0.06	0

√ **SECTION 212(c)(3):**

The Tier 2 assessment indicated a cancer risk of less than one in a million for the residential receptor and commercial receptors due to toxic emissions from the abrasive process. Therefore, public notice will not be required by this section.

√ **SECTION 212(g):**

This section requires a public notice for all new or modified sources which undergo construction or modifications resulting an emissions increase exceeding any of the daily maximum specified in the table below. As shown in the following table, the emission increases are below the daily maximum limits, therefore public notice will not be required by this section.

LB/DAY	CO	NOX	PM₁₀	ROG	Lead	SOX
MAX. LIMIT	220	40	30	30	3	60
INCREASES	7.223	0.89	0.24	0.16	0	0.02

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▫ **RULES 401 & 402, VISIBLE EMISSIONS & NUISANCE**

No visible emissions or odors are expected with proper operation of the equipment.

▫ **RULES 404 & 405, PARTICULATE MATTER CONCENTRATION & WEIGHT**

Compliance with these provisions is expected with proper operation of the equipment.

▫ **RULE 481, SPRAY COATING OPERATIONS**

▼ **SECTION (a)**

The use of HVLP spray equipment complies with these requirements.

▫ **RULE 1107, METAL COMPONENT COATINGS**

▼ **SECTION (c)(2), VOC CONTENT OF COATINGS**

The proposed modification does not result in any change of facility operations. The company is expected to continue to comply with the provisions of this rule by using compliant coatings.

▼ **SECTION (c)(6), TRANSFER EFFICIENCY**

The use of HVLP spray equipment complies with these requirements.

▫ **RULE 1147, NOX REDUCTIONS FROM MISCELLANEOUS SOURCES**

This rule requires gas fired combustion sources, in this case ovens, to emit no more than 30 ppmv of NO_x at 3% O₂. The emissions of NO_x from this new burner are less than 30 ppmv. The air make-up unit is pre-approved by the District for this rule. Thus, this equipment is expected to comply with this requirement.

▫ **RULE 1155, PARTICULATE MATTER (PM) CONTROL DEVICES**

The cartridge dust collector has pulse-jet automated shaker. The operator has another bag-house on the site and observes for possible visible emissions. The facility had no visible emission complaints against it on the records. Thus, compliance with the rule requirements is expected.

▫ **RULE 1171, SOLVENT CLEANING OPERATIONS**

The proposed modification does not result in any change of facility operations. The company is expected to continue to comply with the provisions of this rule by using compliant solvents.

REGULATION XIII

▫ **RULE 1303(a), BEST AVAILABLE CONTROL TECHNOLOGY (BACT)**

NO_x EMISSIONS

The burner is pre-approved for less than 30 ppmv NO_x at 3% O₂ which is BACT compliance. There is an increase in CO over 1 lb/day since the new burners emit slightly higher. However, there is no additional BACT for CO from a natural gas fired oven. The emission increase of PM, ROG and SO_x are well below 1 lb/day so BACT is not triggered for these pollutants.

PM₁₀ EMISSIONS

The use of cartridge filter dust collector for the abrasive blasting room is compliance with the current BACT requirements for this type of equipment.

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□ **RULE 1303(b)(1), MODELING**

Modeling is not required since PM10, NOx and CO emissions are below the Table A-1 allowable emissions.

NOx (lbs/hr)		PM10 (lbs/hr)		CO (lbs/hr)	
Allowed	Actual	Allowed	Actual	Allowed	Actual
1.26	0.037	7.6	0.075	69.3	0.007

□ **RULE 1303 (b)(2), EMISSION OFFSETS**

There are no VOC emission increases under this project from the coating operation. No emission offsets were required for <0.5 lb/day emission increases for other criteria pollutants (ROG and SOx) from the natural gas combustion. No CO offsets were required for this project as the District has attained the national and state standards. Since the increase in PM10 for this project is >0.5 lb/day, one pound of PM10 was needed to be offset under Rule 1304 (d)(2)(A) [less than 4 TPY PM10].

□ **RULE 1401, NEW SOURCE REVIEW OF CARCINOGENIC/TOXIC AIR CONTAMINANTS**

As discussed in the evaluation report the slight toxic emission increases from this project will result in a risk of less than 1 in a million and HIA/HIC below 1. Therefore, this project is expected to comply with these requirements.

REGULATION XXX

The proposed project is considered as a “de minimis significant permit revision” to the initial Title V permit issued to this facility in July 2011. Rule 3000(b)(6) defines a “de minimis significant permit revision” as any Title V permit revision where the cumulative emission increases on non-RECLAIM pollutants or hazardous air pollutants (HAP) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air contaminants	Daily Maximum (lbs/day)
HAP	30
VOC	30
NOx	40
PM10	30
SOx	60
CO	220

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Rule 3003(j) specifies that a proposed permit for the initial Title V permit shall be submitted to EPA for review. To determine if a project qualifies for a “de minimis significant permit revision”, emission increases resulting from all permit revisions that are made after the submittal of proposed permit to EPA shall be accumulated and compared to the above threshold levels. This is the first permit revision for modification of the control device. The cumulative emission increases resulting from this proposed permit revision are summarized as follows:

Revision	HAP	VOC	NO_x	PM₁₀	SO_x	CO
1 st Revision; administrative change to remove the heater for a spray booth (A/N 555288)	0	0	0	0	0	0
2 nd Revision; modify the spray booths and install a abrasive blasting room and a dust collector. (A/N 564923 to 564928)	0	1	1	1	0	27
Totals	0	0	1	1	0	27
Maximum Daily	30	30	40	30	60	220

RECOMMENDATIONS

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a “de minimis significant permit revision”, it is exempt from the public participation requirements under Rule 3006 (b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not raise any objections within the review period, a revised Title V permit will be issued to this facility.